

**IN THE CLAIMS**

*Please amend the claims as follows:*

1. (Currently Amended) A diamond composite substrate, comprising:  
a diamond monocrystalline substrate having first and second opposed main faces; and  
a diamond polycrystalline film laminated thereon by a vapor phase synthesis,  
wherein the diamond monocrystalline substrate having a thickness defined by a spacing  
between the main faces to be at least 0.1 mm and no more 1 mm.
  
2. (Currently Amended) A diamond composite substrate according to claim 1, wherein a  
difference between an orientation of a the first main face, which has a largest surface area of the  
diamond monocrystalline substrate, and an orientation of a {100} plane is no more than 5  
degrees, and  
  
the diamond polycrystalline film is laminated on ~~an opposite~~ the second main face parallel  
to ~~said main~~ the first face.
  
3. (Currently Amended) A diamond composite substrate according to claim 2, wherein the  
first main face is the {100} plane.
  
4. (Cancelled)
  
5. (Currently Amended) A diamond composite substrate according to ~~any of claims~~ claim 1  
~~to 4~~, wherein a thickness of the diamond polycrystalline film laminated over the diamond  
monocrystalline substrate is at least 0.1 mm and no more than 1 mm.

6. (Currently Amended) A diamond composite substrate according to ~~any of claims~~claim 1 to 5, wherein a ratio of the thickness of the diamond monocrystalline substrate to the thickness of the diamond polycrystalline film is between 1:1 and 1:4.

7. (Currently Amended) A diamond composite substrate according to ~~any of claims~~claim 1 to 6, wherein the diamond monocrystalline substrate is made up of a plurality of diamond monocrystals all having a same orientation of the first main face having the largest surface area, and

~~these~~the plurality of diamond monocrystals are joined by the diamond polycrystalline film formed by the vapor phase synthesis over ~~said~~the diamond monocrystals.

8. (Currently Amended) A diamond composite substrate according to ~~any of claims~~claim 1 to 7, wherein the difference between orientations of faces of the plurality of diamond monocrystals in a direction of rotation with respect to an axis perpendicular to the ~~main~~ faces thereof is no more than 2 degrees, and

the difference between the orientations of the ~~respective main faces~~ of the plurality of diamond monocrystals and the orientation of the {100} plane is no more than 5 degrees.

9. (Currently Amended) A diamond composite substrate according to claim 8, wherein the orientation of the ~~main~~ faces of the plurality of diamond monocrystals is {100}.

10. (Currently Amended) A diamond composite substrate according to ~~any of claims~~claim 7 to 9, wherein a difference in thickness between the respective diamond monocrystals is no more than 10  $\mu\text{m}$ .

11. (Currently Amended) A diamond composite substrate according to ~~any of claims~~claim 7 to 10, wherein a gap between the plurality of diamond monocrystals is no more than 500  $\mu\text{m}$ .

12. (Currently Amended) A diamond composite substrate, wherein a diamond monocrystalline substrate having first and second opposed main faces is made up of a plurality of diamond monocrystals in which a difference between orientations of the diamond monocrystals in a direction of rotation with respect to an axis perpendicular to ~~main faces thereof~~ of the diamond monocrystals is no more than 2 degrees,

~~and a difference between orientations of the respective main faces~~ of the plurality of diamond monocrystals and an orientation of a {100} plane is no more than 5 degrees, the plurality of diamond monocrystals are joined by a diamond polycrystalline film formed by a vapor phase synthesis on ~~an opposite~~ the second face parallel to the ~~respective main faces~~ of the plurality of diamond monocrystals, and

an entire surface of ~~said the first~~ main face is integrated by vapor-phase synthesized diamond monocrystals grown using the diamond monocrystalline substrate as a seed crystal,

and

a spacing between the main faces is a thickness of the diamond monocrystalline substrate and at least 0.1 mm and no more than 1 mm.

13. (Currently Amended) A diamond composite substrate according to claim 12, wherein the orientation of the ~~main~~ faces of the plurality of diamond monocrystals is {100}.

14. (Cancelled)

15. (Currently Amended) A diamond composite substrate according to ~~any of claims~~claim 12 ~~to 14~~, wherein a thickness of the diamond polycrystalline film formed by the vapor phase synthesis over the plurality of diamond monocrystals is at least 0.1 mm and no more than 1 mm.

16. (Currently Amended) A diamond composite substrate according to ~~any of claims~~claim 12 ~~to 15~~, wherein a ratio of the thickness of the plurality of diamond monocrystals to the thickness of the diamond polycrystalline film is between 1:1 and 1:4.

17. (Currently Amended) A diamond composite substrate according to ~~any of claims~~claim 12 ~~to 16~~, wherein a gap between the plurality of diamond monocrystals is no more than 500  $\mu\text{m}$ .

18. (Currently Amended) A diamond composite substrate according to ~~any of claims~~claim 12 ~~to 17~~, wherein a difference in the thickness between the plurality of diamond monocrystals is no more than 10  $\mu\text{m}$ .

19. (Currently Amended) A diamond composite substrate according to ~~claims~~claim 12 ~~to 18~~, wherein a surface of the diamond polycrystalline film has been polished.

20. (Currently Amended) A diamond composite substrate according to ~~any of claims~~claim 12 to 19, wherein a surface roughness Rmax of the diamond polycrystalline film is no more than 0.1  $\mu\text{m}$ .

21. (Currently Amended) A method for manufacturing a diamond composite substrate having first and second opposed main faces, wherein

lining up a plurality of diamond monocrystals having a same orientation are lined up;

forming a diamond polycrystalline film is formed by a vapor phase synthesis over said  
the plurality of diamond monocrystals; and

joining the plurality of diamond monocrystals are joined by with the diamond  
polycrystalline film,

wherein the diamond monocrystals have a thickness of at least 0.1 mm and no more than  
1 mm.

22. (Currently Amended) A method for manufacturing a diamond composite substrate according to claim 21, wherein a deviation between the respective orientations of the plurality of diamond monocrystals in a direction of rotation with respect to an axis perpendicular to ~~main~~ faces thereof, ~~which has~~having a largest surface area, is no more than 2 degrees, and

a difference between orientations of the respective ~~main~~ faces of the plurality of diamond  
monocrystals and an orientation of a {100} plane is no more than 5 degrees.

23. (Currently Amended) A method for manufacturing a diamond composite substrate according to claim 22, wherein the ~~main~~ face having the largest surface area of the respective

faces of the plurality of ~~that make up~~ the diamond monocrystals is the {100} plane.

24. (Cancelled)

25. (Currently Amended) A method for manufacturing a diamond composite substrate according to ~~any of claims claim~~ 21 ~~to~~ 24, wherein a thickness of the diamond polycrystalline film formed by the vapor phase synthesis over the plurality of diamond monocrystals is at least 0.1 mm and no more than 1 mm.

26. (Currently Amended) A method for manufacturing a diamond composite substrate according to ~~any of claims claim~~ 21 ~~to~~ 25, wherein a ratio of the thickness of the plurality of diamond monocrystals to the thickness of the diamond polycrystalline film is between 1:1 and 1:4.

27. (Currently Amended) A method for manufacturing a diamond composite substrate according to ~~any of claims claim~~ 21 ~~to~~ 26, wherein a difference in thickness between the plurality of diamond monocrystals is no more than 10  $\mu\text{m}$ .

28. (Currently Amended) A method for manufacturing a diamond composite substrate according to ~~any of claims claim~~ 21 ~~to~~ 27, wherein a gap between the plurality of diamond monocrystals is no more than 500  $\mu\text{m}$ .